



BADGER & MANLEY, Publishers and Proprietors.

Vol. LXIII.

"OUR HOME, OUR COUNTRY, AND OUR BROTHER MAN."
AUGUSTA, MAINE, THURSDAY, JANUARY 3, 1895.

TERMS: \$1.50 per annum, in Advance.

No. 9.

Maine Farmer.

Edward Atkinson told the Massachusetts farmers the other day that there were more abandoned farms in old England than in New England.

Give the growing pigs a little of charcoal or wood ashes every few days during their confinement of winter. It will give strength to their limbs and frame, and tend to keep up a healthy appetite.

Do not overlook the annual gathering of the pomologists at Foxcroft next week. A rich programme has been arranged. Piscataquis county will give you all a warm welcome. It is their way of doing things of the kind.

The Vermont State Grange elected C. J. Bell, East Hardwick, as State Master to succeed Hon. Alpha Messer, now Lecturer of the National Grange. Mr. Bell is now one of the State Senators. Rhode Island also elected a State Master this year, Thomas G. Hazard, Narragansett Pier.

The consensus of opinion in Massachusetts on the killing of cattle under the tuberculosis test, among the farmers and veterinarians alike, is that the owners of cattle killed should be paid their full value instead of half, as the law now stands. With this provision it appears as though all opposition to the execution of the law would cease.

The venerable Oaks Howard, West Winthrop, passed his 91st birthday the 20th ult., and still in health and strength remarkable at that age. He was one, and the last remaining, of that noble band of farmers, the pioneers of progressive agriculture in Kennebec county, who were instrumental in starting the *Maine Farmer*. From the first number to the present time he has been a regular subscriber. It was but two years ago that we saw him in the field at work with his scythe. Last autumn he hauled sixteen baskets of corn in a single day. The farm on which he still lives, now conducted by his son, George Howard, has all this time been known as one of the best farms in Kennebec county. It is now noted for its fine Roxbury Russet orchard.

TOO MUCH WATER.

There is still another lesson found in the butter score of the Farmington exhibition to which we wish to call attention, and which now relates to the creamery samples and concerns creamery work. "Too much water" is the record written against the exhibits from several of our State factories, in both tub and print samples.

This is a very important point in connection with creamery butter, as made in our State. It is often found in collective exhibits, whether made up at the State shows or county fairs. And it is a serious defect. Dealers scale down the price of such every time. Consumers condemn it and evade it when a better article is within reach. It lacks body, is porous and soft, will not keep, and as consumers express it, "does not spend." Some of the tub samples at Farmington, as judged by the expert, would have analyzed as much as twenty per cent. of water. Twenty pounds of water in a hundred of the finished product is good reason for lack of body, and fully accounts for the fact that it "does not spend" when served on the table, and does not keep when exposed to the air. Maine creameries are by no means the only ones against which this defect is set down. They are found all over New England, though not so generally now as formerly. The condemnation of the market has worked a measure of improvement in this direction. But there is still room for more, and our Maine creameries will do well to take note of the fact.

This excess of water left in the product may be accounted for in two ways. First, the maker or proprietor may be trying to sell his butter at a low price. He can sell at better prices. In a long run, however, this will prove a shortsighted policy, for the lack of reputation of the make and the scale down of the price is sure to more than discount the money received for the excess water. Better far for any creamery and for all to make the best product possible. The rule holds good that there is the most money in the choice product.

Second, the maker may not be master of his business, and does not know either that his product is thus defective, or if discovered would he know the process through which to correct it. Doubtless we have some makers who are not yet fully masters of the business they have in charge. The art of the skilful butter maker is not mastered without close study of the work and extended experience. It is not strange that the product turned out from such hands is more or less defective, without a realization of the fact on the part of him who made it.

Good sound butter should not contain over thirteen or fourteen per cent. of water, and it will be still better if the proportion is reduced below this. It is not uncommon among the best private dairy work to find samples whose water content is as low as twelve per cent. Some of the fancy, high priced make

runs as low as ten per cent., while in one case we recall at an exhibition a sample of a well known fancy make was analyzed and found to contain but eight per cent. of water. Such samples are as solid and compact as wax, and as a consequence will hold their fine touches of quality for a period much longer than the watery, porous article.

"Too much water," then, is a defect that calls down the score at an exhibition, and scales down the price in the market every time. Where the large dealers in the great markets, acting as judges at exhibitions, condemn such butter, as the record at Farmington shows, and as has before been done on similar occasions, it is best to accept the decision and go to work to improve the product. That some of our factories are striving to do this is amply apparent, as shown by their presence at dairy meetings and by their study of the many complicated problems connected with the work. That others need to give attention in a like direction is as plainly evident. That factory will succeed best that turns out the best product.

APPLE NOTES.

An advance in the price of apples to \$1.50 a barrel all through for good lots has made quite a stir in the fruit trade. A large quantity has been sold at this price and are now being delivered for shipment. After quite heavy purchases, however, the demand has dropped off again and sales bid fair to be slower for a time. Later on the trade no doubt will be active again, and possibly at another slight advance in price.

There are still some good lots of Baldwins left in growers' hands though it is probable that a larger part of this kind and of the Greenings, Kings and other of the early winter sorts have been sold. The crop of Bon Davis and Russets are still unsold and will await anticipated higher markets later on. There are also some good lots of Northern Spy in growers' hands.

Fruit that has been packed thus far has generally been found in good order though giving signs that it would not continue in that condition so late in the winter as is sometimes the case.

Varieties.

Just why the State Pomological Society should give prominence to the *American Golden Russet* in their fruit list and premium schedules does not appear. This variety is but very little grown in the State—its not even well known among our fruit growers—has no marked commercial value, nor any marked superiority to commend it over many other varieties grown in the State of which less note is taken. Its chief merit is its delicious flavor when eaten from the hand. Its color is not specially attractive, being a partial russet all over with a bluish cheek where exposed to the sun, while its size is only small to medium. Its only place can be in the fruit garden grown for home use, and even for this there are other varieties equally good that are larger and more showy. Flesh is juicy, rich and melting at about this season of the year.

The *Hurbit* is a variety that is reaching a position of some importance with growers in our State. We found it at many of the fairs last autumn where it made a fruit show rivaling in beauty and perfection the fruit as grown in its native Connecticut land. It is a bountiful bearer, good size, showy when ripened up and of most excellent quality. In beauty and quality it is a close match for the far famed King of Tompkins, though in size a trifle smaller. Its season is early winter carrying well up into January.

The *Rhode Island Greening*, on the authority of the venerable O. B. Hadwen, Worcester, Mass., originated at Portsmouth, R. I., the tree standing near a tavern, as he states it, known as Green's Inn, where many travelers became acquainted with it and took scions therefrom.

GLUTEN MEAL.

The general name of gluten meal applies to by-products of corn. These by-products are not, however, always alike, hence are known under the names of gluten feed, gluten meal, cream gluten and corn bran, all of which are sold and used for stock fodder. In the manufacture of glucose, corn starch, etc., the corn is soaked in water until soft. It is then run through burr stones and is crushed into a coarse, wet meal. The meal is then run over sieves when the starch with a portion of the flinty part of the corn are washed out. The coarser portion of the meal together with the hull of the kernel remain on the sieve, are dried, and when sold together are called "gluten feed." This is the kind found on the market made up with a mixture of the corn bran or hulls. Sometimes these coarse hulls are screened off, in which form they are sold as "corn bran." The remainder, the finer portions left after the hulls are screened off are sold as "gluten meal." The finer portions of the flinty part of the kernel which pass off with the starch are separated from the starch, dried, and sold as "cream gluten." This is a very concentrated feed, rich in protein nutrients, and more valuable per pound than either of the others named.

Although the above named feeds all

come from corn, yet they are radically different in food elements from corn meal, the starch and sugar having been chiefly taken out in the process to which it has been subjected.

SERINKAGE FROM WINTER STORAGE.

Farmers too often lose sight of the shrinkage of vegetables and fruit while stored in the cellar for winter keeping. Many times this is much more than any increase in value that is realized. We have often noted the shrinkage of apples from long storage. As an instance of what shrinkage in stored vegetables amounts to, Garden and Forest tells of a farmer in Long Island who as an experiment, put in a storage warehouse, last autumn, one hundred bushels of potatoes which weighed sixty pounds to the bushel. In April he weighed the same potatoes before sorting out those which had become unsalable, and found that he had eighty-three bushels. Examination showed that many of the tubers which had been large enough to sell in the autumn were now too small to sell, and besides this, some were rotting, so that when these were taken out he had seventy-eight bushels to sell, instead of one hundred. This was a loss of twenty-two per cent. in quantity, besides the cartage he could have saved if he had sold the potatoes from the field, not to speak of the interest of his money for six months.

AGRICULTURE IN SCHOOLS AND COLLEGES.

[From Annual Address N. H. State Master, N. H. Batchelder.]

It may seem startling, and to some absurd, to advocate the study of agriculture in our public school system, but this is being done elsewhere and successfully. The vast majority of those whose school life ends with the district school are destined to be engaged in some branch of productive industry, in occupations in which manual skill is of primary importance. And yet, we frame for these, to the exclusion of more useful studies, such courses, as if their destination were to be the author's sanctum, and such progress of geography as if they were intended to lead exploring expeditions into the center of Africa; and the last instruction that has entered our head to give them is that which they will require in their every day life from the hour they issue from school. We contend that the art of reading can be acquired as easily from a series of lessons on the cultivation of fruit trees as through a series containing the oratory of Burke. And the teaching of practical school gardening would be as valuable as setting the pupils to commit to memory the heights of the principal peaks of the Rocky mountains. In European countries, we find that this has already been done and we refer you to England, France, Germany and Belgium for the success of the scheme. In the latter country, but little larger than New Hampshire, we find four schools for higher agricultural education, 33 secondary schools with 40 short courses in agriculture, and numerous courses in agriculture in normal and primary schools. In France the study of agriculture has been introduced into her general school system with great success. The farms of France are the best cultivated in the world and her production per capita has doubled in half a century.

While other nations are decreasing in their relative agricultural interests, France is working in the other direction. For instruction in purely agricultural institutions, besides the instruction in agriculture given in public schools, the government of France appropriated \$350,000 for 1890 and 1891. In Paris is located the renowned Agricultural university; also three national schools of agriculture, one of horticulture, one of dairying, one of veterinary science, two of forestry, and two of shepherds' schools. To these must be added a professorship of agriculture in each of the 86 departments or districts into which France is divided, with farm schools, experimental stations, fields and colonies. Besides all this, in 1850 agriculture was made optional in all public schools, and in 1879 a law compelled each normal school to prepare for teaching agriculture and to fit all the teachers of France for instructing in land culture. In England elementary education in agriculture has been introduced into the public schools, and the examination made by school officials for the purpose of testing the proficiency attained by the scholars in the agricultural studies. We have the right to expect a similar condition of affairs in this country, and should use our influence in hastening the matter. One year ago we treated the subject of agricultural education at some length, and have since seen no reason to change our position taken at that time. We are of the opinion that the institutions known as agricultural colleges were never intended by the founders and promoters to be compared with classical colleges, and in trying to ape those institutions they are defeating the object of their existence. In accordance with an expression taken by this organization one year ago the State Board of Agriculture forwarded to the committee on curriculum of the New Hampshire Agricultural college, a communication recommending that a two years course be established in agriculture for boys and in domestic science for girls, which course should constitute the first two years of the four years course leading to the degree of bachelor of science.

In 1866 Benjamin Thompson said in his will, "The object of this devise being to promote the course of Agriculture by establishing an agricultural school, to be located on a Warner farm, so-called, and situated in said Durham, wherein shall be thoroughly taught, both in the school room and in the field, the theory and practice of that most useful and honorable calling."

After the most liberal appropriations from our State, asked for in the name of agriculture, and lavish appropriations by the national government, we are filled with sorrow to be told 40 years after the wish of this noble benefactor was expressed, and with the history of European institutions before us, that an agricultural college cannot be maintained because

the principles of the science have not been established to a sufficient extent to form a course of study, and to hear the expressed wish of this grand old benefactor made a subject of ridicule and contempt. It is with some satisfaction that we refer to the result in Connecticut where the Grange has succeeded in establishing an agricultural college, and enrolled 100 students the first year. The agricultural college in our State has been established chiefly for the benefit of agriculture, and the farmers of the State cannot afford to allow it to take any other course, to be the means of draining an industry it was intended to assist and develop. Make the institution an honor to the State, and the most potent factor in New England in popularizing agriculture by returning to the farms young men so skilled in agriculture, so impressed with its possibilities, and so broadened in intellectual attainments and social culture as to be the means of stimulating to better practice the farmers of the entire section.

Communications.

For the Maine Farmer.

CALVING DOWN COWS.

Feeding to Produce a Large Flow of Milk Between Calvings.

BY VALANCEY E. FULLER.

A dairy cow is retained for the profit of her product, she will produce, between calvings, be it milk, butter or cheese.

There is no dairy cow, worthy of the name of such, that will not give a profit to its owner in the first five to six months after calving, but there are too many cows retained in our dairies, that from want of management, or natural inability to respond to feed, take out of the pockets of their owners in the last half of the year after calving, the profits they have made in the first half. Such a cow is stealing from the other good cows in the herd, and if she is incapable of doing better, should be discarded at once. If, on the other hand, she has a natural aptitude to make a profit in the last period of lactation, and the owner is at fault, then he is robbing himself and his family.

I will assume the owners of herds have cows that are capable of showing a profit, if properly managed. To attain this end, we ought to start at least six weeks previous to calving and dry off our cow for thirty days, thereby, in case of breedings, producing a more healthy calf, as a good cow cannot be taxed successfully to produce milk and at the same time properly nourish the calf she is carrying. If you are retaining the cow as a dairy animal pure and simple, by drying her off, you are preparing her to respond to the treatment you ought to give her the first thirty to forty-five days after calving.

Having dried off your cow—and it should be done gradually—feed her from two to three quarts of bran, and one to one-half quarts of linseed oil meal, damped, per day, according to her size, and all the hay she will eat. My experience is, the linseed oil meal will tend to keep the bowels open, and to assist in a ready cleaning of the afterbirth. Under this treatment, you are keeping your cow in a healthy, thrifty condition, and at the same time, are not having her too fat to calve, and are laying the foundation for the feed you will give her after calving.

To keep the cow in a condition to avoid fever in calving, seven days before she calves, give her a drench consisting of one and one-half lbs. of Epsom salts, one quart of molasses, two tablespoonfuls of ground ginger in one quart of water. Should her bowels be constipated as she approaches calving, increase the quantity of linseed oil meal, and just as soon as she has dropped her calf, or shows that she is about to drop it, give another drench as above. When she has calved, give her a warm mash of bran and ground oats. Keep her warm, and draw any milk from her that the calf will not suck. Keep her udder cleaned out, to avoid garget, by milking her at least three times a day. Should the drench fail to act, repeat in twenty-four hours. See that she has dry bedding, and plenty of it to lie on.

Having carried your cow safely through calving, the most important part of your business in making her a profitable cow until next calving has now been reached. I am satisfied that unless the cow be brought to her highest milking point within the first thirty to forty-five days after calving, her production will be materially decreased. If, however, we have obtained the desired result in the time specified, with careful handling and feeding, we can retain her, as a rule, upon a good flow for a very considerable length of time, but if she has once in the earlier period of lactation been permitted to shrink, the probabilities are we have lost her best services until next calving. To retain the sought for flow, it is desirable to stimulate the cow to a large flow of such feed as will tend to that end. Do not give her what is commonly called "rich food," make the feed rather sloppy in the earlier period of lactation, and make every effort to increase her flow.

My practice has been to give a cow of about 800 to 900 lbs., freshly calved, about 2 lbs. of bran, 2 lbs. of ground oats, and $\frac{1}{2}$ lb. of linseed oil meal for the first six or eight days, in three feeds, as a warm mash. Give her all the lukewarm water she will drink, and if she will not drink the plain water, add part

of the meal to it. For the first six or eight days remember that she is an invalid, and treat her as such. If at that time she is doing well, increase her bran and ground oats by a half pound per day, until she has about $\frac{1}{2}$ lbs. of bran, $\frac{1}{2}$ lbs. of ground oats, and $\frac{1}{2}$ lbs. of linseed oil meal, which she ought to be able to take care of about the fifteenth day after calving, and continue this feed for about a week or ten days, and then give her plenty of bulky feed, such as cut clover, corn stalks, corn feed or ensilage, according to the season of the year. At the end of the twenty-five days after calving increase the bran and oats, and at about the thirtieth day after calving add a little corn meal. From the thirtieth to the fortieth day after calving, according to the individuality of the cow, add more corn meal, and if you are seeking butter, add cotton seed meal, and gradually increase it until you have brought your cow to her best production. Experience of the individual cow must be your guide as to how fast you increase it. If pasture is attainable, put her on same as soon as it is safe to do so, but supplement it by feeding her bran and ground oats mixed, or such other feed as your experience with the cow teaches you is desirable to give.

I have found it a good practice to wet the feed with hot water every night, and allow it to remain for next morning's feed in a pail. Wet the night's feed in the morning with hot water, and leave it in a covered pail to feed in the evening.

Be careful that you do not overfeed your cow. If you find your cow, under this treatment, at any time decreases her flow rather than increases it, you may be pretty well assured that you are overfeeding her, therefore cut down her feed until she again responds to it.

If a cow at any time refuses her feed, do not leave it in front of her, but take it away immediately and skip that and her next feed.

It may be contended by butter makers that this is not the ration and care that is necessary to be given a cow that is to be kept as a butter maker, but I differ with them. Experience has taught me, and the results of the World's Fair Dairy Tests, where I watched the Jerseys under my charge most carefully, only emphasized the fact, that if a cow has a natural aptitude to convert her feed into a milk rich in butter fat, she will do so when she has reached the full limit of her milking capacity. It follows, that if you get your cow to a good flow you will be able to retain her upon a higher production at the later period from calving than if you got but a limited quantity of milk in the earlier period of lactation, and as a cow begins to shrink in milk her percentage of butter fat will increase proportionately. Now, if you have not produced a good flow of milk, you will find that the last period of lactation is an unprofitable one for the cow. If, however, you produce a good flow of milk in the earlier period, and feed and manage her properly throughout the balance of the year, and it is in the cow to do so, you will find that she is keeping up her end and is doing her part towards enriching you.

Lowell, Mass.

For the Maine Farmer.

THE OUTS OF BEE CULTURE.

BY REV. C. M. HERRING.

The profits of bee keeping are often portrayed in glowing colors. The old beekeepers are constantly kindling into a blaze of enthusiasm over their cherished pet, and they become eloquent on the wonders of the hive and the richness of its product. They tell us the little creature is full of philosophy, and its mysteries are sung by Homer and Virgil.

But admitting all the good that can be said in favor of this wonderful progeny and its rich product, still there are *outs* that should be considered before going fully into the business of handling bees. The bee has a sting, with a barb at one end and a bag of poison at the other, and every beekeeper is destined to hold in his blood, more or less of this acid poison. It is true an alkali applied at once will greatly alleviate the case, and usually secure the patient against all harm. But in many cases this remedy is unknown, or neglected, and harm will sometimes follow.

Inexperienced beekeepers will not escape this evil, and swollen eyes, ears, face, hands, and other parts of the body, will occasionally smart under the infliction of this dreaded weapon, and in some extreme cases death has followed. When enraged it is sometimes found that a whole colony will attack its enemy at once, and fight to the bitter end. In such case the beekeeper is in considerable danger. There is one case on record in which a whole apiary, of many hives, became mad at once, and laid siege to every living thing that fell in its way. Such a calamity is dreadful beyond description, but it may never again occur. The new beginner, in meeting this pointed weapon of the bee is liable to become disgusted and turn back from his enterprise.

It is said of a man in New Jersey, who was delighted in prospect of handling bees, and made great outlays, when he encountered the sting of his pets he piled all his hives in one huge stack

and made a grand bonfire of the whole heap. He had not counted the cost; the *outs* were not heeded, and his folly soon appeared. The beginner should commence in a small way, and gradually these liabilities will disappear. For me, after this long experience, I would not divest the bee of his weapon if I could. I think I have learned how to keep my bees good natured, avoiding nearly all irritation; and this is what every beekeeper can do in time, if he has any good degree of the bee gumption. Some are fools in this business, and never can succeed, and the bees know very well when they encounter such stupidity. They despise a dodging, brushing coward, and they sting him every time.

In my case the fear of the sting protects my garden and fruit. My neighbors are constantly annoyed by thieves prowling around their orchards, and stealing their garden products, but on my ground it is known that there are bees that will defend their rights. Once a thief tried to steal one of my hives, and he carried it less than one rod. The bottom fell off, and the thief made long strides for the gate. The barb of a thousand spears hastened his steps, and the trial never was repeated. It is understood by all the boys in town that on my grounds are entrenched millions of little warriors all ready for a battle, and to intrude would be unsafe, unless treading in the footsteps of the master. To me the stings of bees have no terror, for I have learned to know when there is safety and when there is danger, and I act accordingly. And this state of security is attainable by all successful beekeepers.

Besides the *sting* there are other *outs* in bee culture, one of which is expense. It costs something to run bees, and often the novice sustains heavy losses. They lay out largely at the start, and the first winter sweeps away their cherished hopes. I knew a young man in this State whose hopes were high, planned for a large bee building, and purchased bees heavily, but the second winter, before his air castle was completed, his bees were all dead, and his empty hives were for sale. As a rule, it is safe only to commence with one or two colonies, and work up the business by degrees. The first hive should be strong and vigorous, worth at least \$8. A cheap colony will be only a bill of expense, and cannot be afforded. The great secret of the business is to run only strong colonies.

Mr. V. P. DeCoster of Buckfield has given the readers of the *Maine Farmer*, recently, a very sensible article on the "Profits in Bees," which every beginner in bee keeping would do well to study. His account of one hive tallies almost exactly with one of mine. The parent hive gave me two swarms and 60 lbs. of surplus honey. One of the swarms gave me 25 lbs. The other swarm lost their queen and finally died, leaving me 85 lbs. of nice comb honey. The parent hive is heavy and strong, and the swarm is first class. One pound less than my friend is the only difference. My average yield of honey this year is about 40 lbs. to the colony, and a gain of 50 per cent. in swarms. The old hives and the swarms are strong and heavy. The most of the swarms are doubled.

It is well to compare notes. Who will report anything better? I mean, of course, in raising "honest honey." None of us can compete with Mrs. Cotton, or her disciples, and we will not try.

For the Maine Farmer.

BARN BASEMENTS.

BY D. J. BRIGGS, ORCHARD GROVE FARM, SOUTH TURNER.

Mr. Editor: I notice in your valuable paper some comments on the utility of barn cellars. Location has much to do in buildings. A good location should be selected where proper drainage can be secured. A barn cellar of proper depth, should be as near eight feet as possible. I have had charge of a farm fifty-eight years. The first few years the droppings of the animals were thrown out of windows under the eaves to catch all of the outside elements which was very detrimental to the manure pile. Seeing the poor results therein, we concluded to put a stop to some of the leaks, so we built a shed over the manure pile and put hogs on the manure. We found it to be a great improvement in fertilizing material. This was continued for a number of years, but finally it was decided there was further improvements. So we built a new barn, forty by eight-four feet, with basement under the whole, eight feet in the clear, well drained and ventilated and lighted. We consider it a great improvement over former practice. The objection that occurs occasionally is in poor location or improper construction. We think the barn cellar one of the finest rooms in all of the structure.

If one will keep the barn cellar neat and well ventilated, as well as the stable above, it would be all right. We would not be without a good barn basement after the experience we have had. It serves for a great many purposes that could not be enjoyed with equal expense and convenience. I have visited barn cellars where the location was not the best, it being shallow and poorly ventilated and kept in a slovenly condition. The stench might be unhealthy to either

man or beast. Such structures are not desirable. The barn cellar can be made as pleasant a room as any room in the barn. The cellar can be built wholly of granite, causing a large outlay, or be built in part granite and part timber, with less expense; I would prefer the use of wood as far in as it could be consistently. It is not necessary for a large outlay in the construction of a barn cellar, but should be strong and durable. In my travels I have noticed some farmers continue to shovel their manure out of the tie-up into the open air under the droppings of the eaves of the barn to be soaked, and more or less of the fertility lost. Generally such farmers' income comes from some other direction than tilling of the soil.

For the Maine Farmer.

WHAT AN INDUSTRIOUS FARMER MAY DO.

BY AGRICOLA.

We hear much about farmers not enjoying a fair share of the comforts of life. It is true that very many do not have good houses, good furniture and other conveniences. It is also true that a large proportion of the people engaged in other industries do not possess many of these comforts. But the cause of this lack of success is in the men and their surrounding condition more than in the business. In looking over the farm and buildings of John T. Brown of Exeter, I was forcibly reminded what a Maine farm may do in the hands of an intelligent, industrious man aided by an industrious, intelligent wife. This farm has been in the family for three generations and is an object lesson to grumblers. The fields smooth and level, the fences straight and in good repair. No bushes or weeds growing on each side. The buildings consist of a good two storied house and ell, shed to the barn which is 40x80. All the buildings are well planned, no waste space, none filled with trumpery. The mows were built as true as the walls of the barn. The house was well planned, neatly finished and furnished with carpets and furniture. Not a speck of dust anywhere. Everything was shining from the silverware to the panels of the doors. I could see nothing wanting in this farm home except a group of rosy cheek, merry, loving children.

I see a patent cart sword for a dump cart advertised. It is a very handy device for a cart and every farmer should have one, but he need not pay for a patent. It has been used in this vicinity for twenty years. Make your own carts.

For the Maine Farmer.

VALUE OF THE INSTITUTE.

BY EUREKA.

Mr. Editor: The 28th of November I had the pleasure of attending a farmers' institute at West Peru. It was a very disagreeable day to be out, and the ice was running in the river, so I could not cross at the ferry, so I had an extra five miles to travel. But, "He that will not plow by reason of the cold, shall beg in the harvest and have nothing." I have changed it so it reads like this: "The man who will not attend a farmers' institute by reason of the cold shall grope through life and know nothing." On my way being and I went into a store to warm me, when a man came in and asked another if he was going up to the institute, and he said no, they did not amount to anything to the common farmer, for to follow their advice any one would need a large bank account. I have always made it a practice to attend all institutes near home and always enjoyed them. After listening to the speakers I shall have to disagree with the above gentleman, for the lectures are very plain and any one could understand them.

Mr. Gowell's talk on breeding dairy stock was very interesting and would apply as well to the small farmer with one cow as to the large one, with twenty. After a first class dinner furnished by the sisters of West Peru Grange, John Gould of Ohio was introduced by the member of the Board from Oxford county. Mr. Gould is a very earnest speaker and understood the subject he was talking about. His subject was the corn plant, gave a history of the plant, told how to prepare the ground for the crop. He wanted a good soil turned over four or five inches, well cultivated before planting. "Plant in drills," said the man, "planting four kernels of corn in one hill was like the farmer trying to make four calves drink out of one pail." Would cultivate level and not more than an inch deep. Put when the kernels begin to grow and put in the silo. Told how to build a silo and how to fill it if he preferred to cut it. Our meeting was cut short by its being the day before Thanksgiving. By taking the early train the speakers could get home to eat Thanksgiving dinner. We excused them with the understanding that they hold another institute here in the near future.

Canton Point.

For the Maine Farmer.

BARN CELLARS.

BY C. H. MOODY.

To the Editor of the *Maine Farmer*: In reply to your circular asking the opinion of farmers in regard to barn basements or cellars I can say that I think very highly of them as affording a large amount of much needed room at small cost. I fully endorse the points of value as set down in your editorial in the *Farmer* of Dec. 6th. I should as soon think of going back to the old methods of going my way without the moving machine, horse rake, tedder and horse fork as I should of building a good barn without a basement. I think there are no serious objections but what may be overcome with proper ventilation and care.

Turner.

Maine Farmer.

THE KIND OF A COW FOR A DAIRYMAN, AND THE COST OF A POUND OF BUTTER.

The Dairy Division of the Minnesota Experiment Station has been directing its efforts to specialized work in order to demonstrate the actual relation of form to production and decide the vexed question of cost of a pound of butter. The tables, abstract, and cuts herewith presented, and for which we are indebted to the *Northeastern Agriculturist*, give in the clearest possible form the lesson which science and practice have been asserting and proving all these years. It is a lesson the force of which cannot be too highly magnified or too forcibly presented. To a careful study of these tables and of the types of cows presented, we would commend every dairyman in Maine. The subjects discussed in the bulletin, shortly to be issued from this station, are the dairy herd record for 1893, cost of butter production in winter, comparing prairie hay with timothy, rearing dairy calves, cooperative creameries and experiments in sweet curd cheese work.

The record of the dairy herd certainly shows remarkable results. The bulletin gives in detail the different kinds of feed taken by each cow, an analysis of the feed stuffs, the amount consumed by each cow, the monthly yield of milk and butter fat, and many other matters of much interest to farmers, but lack of space prevents their publication in detail. The following table gives a general summary of results:

NAME.	Weight of cow.	Cost of feed.	Lbs. of milk.	Cost of 100 lbs. milk.	Pounds of butter.	Cost of 1 lb. of butter.	Pounds of butter.	Cost of 1 lb. of butter.
Annie.....	821	\$39.10	6013.90	77.9	312.70	12.4	379.03	10.3
Beckley.....	1127	43.62	4949.30	79.3	300.58	12.4	379.03	10.3
Bess.....	802	34.04	4967.90	68.7	267.67	12.4	379.03	10.3
Bettie.....	906	34.04	4967.90	68.7	267.67	12.4	379.03	10.3
Clara.....	1302	32.13	5562.60	57.8	216.43	14.8	262.30	11.3
Dora.....	851.90	47.7	6515.90	77.7	353.80	12.4	379.03	10.3
Fancy.....	1259	37.07	5992.00	61.9	291.71	14.8	262.30	11.3
Gertie.....	880	34.07	6106.20	68.7	260.28	13.1	316.50	10.8
Houston.....	931	41.22	6976.10	74.9	366.38	11.9	444.30	10.0
Jennie.....	1020	39.19	6008.40	65.2	226.99	17.3	275.10	14.2
Nora.....	832	34.62	4536.00	76.3	225.46	15.3	273.30	12.6
Olivia.....	805	34.04	4967.90	68.7	267.67	12.4	379.03	10.3
Patsy.....	872	34.44	6284.20	54.8	239.09	11.7	355.50	10.7
Rosie.....	1027	36.27	6990.20	62.8	303.02	12.9	367.30	10.4
Sully.....	1027	36.27	6990.20	62.8	303.02	12.9	367.30	10.4
Sweet Brier.....	1136	36.73	7337.70	60.1	296.38	12.4	379.03	10.3
Topsy.....	935	41.01	7546.30	54.3	358.42	11.4	434.40	09.4
Tricksey.....	1219	43.98	7000.00	62.2	318.01	13.8	385.50	11.4
Total.....	1101	42.56	10287.20	41.4	407.92	10.4	494.40	08.6
Average.....	962	40.71	5996.60	58.5	340.71	11.9	412.98	09.8

After calling attention to the cost of feed for the different cows, the yield of milk and butter fat, and the average amount of butter made from each cow in the herd, the following statement is made:

If all the cows in the herd that are spare and will not lay on flesh under heavy feeding are placed in one group, and those that carry a superfluous amount of flesh in another group, we find the cows that give the largest returns for food consumed in the first lot, and in every instance those that give a smaller return in the other lot. The spare cows average 337.1 lbs. of butter fat at a cost of 11.6 cents per lb., while the cows that are inclined to put on flesh average 207.8 lbs. of fat at a cost of 13.8 cents per lb.

The next subject investigated is the cost of butter production in winter, but the facts which are developed incidentally seem to be of greater importance than those which prompted the trial. Each cow was charged with all the feed consumed and credited with her yield of milk and butter fat. It was found impossible to make the trial the same length for each cow, for the reason that they were not all at the same time in a condition which would make it fair, so each cow was placed on trial at a time when it was thought she would do herself justice.

A careful record was kept of the amount of feed taken by each cow, and a chemical analysis made of all the feed stuffs used. The cost of the feed was calculated upon the same basis as it was in the yearly feed record. Each milking was weighed and tested by the Babcock test, so the results are actual, no estimates being resorted to in any part of the work. The feed during the trial was timothy and prairie hay, six parts bran, three parts ground barley, three parts corn and two parts linseed meal. The following gives a summary of the results obtained:

NAME.	Average weight.	Days on trial.	Dry matter per day.	Dry matter per 100 lbs. live weight.	Total butter fat.	Butter fat per day.	Butter fat per 100 lbs. live weight.	Cost of 1 lb. of butter.
Annie.....	821	75	23.67	25.80	143.78	1.90	23.27	1.193
Beckley.....	1127	75	23.67	25.80	143.78	1.90	23.27	1.193
Bess.....	802	75	23.67	25.80	143.78	1.90	23.27	1.193
Bettie.....	906	75	23.67	25.80	143.78	1.90	23.27	1.193
Clara.....	1302	75	23.67	25.80	143.78	1.90	23.27	1.193
Dora.....	851.90	75	23.67	25.80	143.78	1.90	23.27	1.193
Fancy.....	1259	75	23.67	25.80	143.78	1.90	23.27	1.193
Gertie.....	880	75	23.67	25.80	143.78	1.90	23.27	1.193
Houston.....	931	75	23.67	25.80	143.78	1.90	23.27	1.193
Jennie.....	1020	75	23.67	25.80	143.78	1.90	23.27	1.193
Nora.....	832	75	23.67	25.80	143.78	1.90	23.27	1.193
Olivia.....	805	75	23.67	25.80	143.78	1.90	23.27	1.193
Patsy.....	872	75	23.67	25.80	143.78	1.90	23.27	1.193
Rosie.....	1027	75	23.67	25.80	143.78	1.90	23.27	1.193
Sully.....	1027	75	23.67	25.80	143.78	1.90	23.27	1.193
Sweet Brier.....	1136	75	23.67	25.80	143.78	1.90	23.27	1.193
Topsy.....	935	75	23.67	25.80	143.78	1.90	23.27	1.193
Tricksey.....	1219	75	23.67	25.80	143.78	1.90	23.27	1.193

The variation in amount of dry matter consumed per day by different cows is much larger than is generally supposed. In order to make comparison, the feed consumed is figured on a basis of one thousand pounds live weight. Houston consumed an average of 28.34 pounds per day; Dido took only 14.61 pounds per day; Fancy following next with 15.41 pounds. Not only are these two cows light feeders, but it also appears from the foregoing table that they gave a small return for the feed consumed. Fancy gave only one pound of butter fat for every 32.36 pounds of dry matter eaten. Dido required 32.36 pounds of butter fat for every 32.36 pounds of dry matter eaten, while the smaller cows, Houston and Dora, required only 20.18 and 18.44 pounds re-

spectively, and the large-framed cow, Topsy, required only 20.04 of dry matter for a pound of butter fat. From this, it seems the line cannot be drawn between good and poor cows on their size, neither can it be drawn on breeds; for example, take the two Shorthorns, Dido and Rose, the former requiring 32.36 pounds of dry matter for a pound of butter fat, to 21.37 pounds for Rose. The grade Holstein, Jennie, takes 28.58, while the grade Holstein, Topsy, is charged only 20.04. The Jersey, Beckley, takes 25.08, and the Jersey, Dora, takes only 18.44.

It is evident, then, that some cows produce butter fat much cheaper than others, the variation being so great that under certain conditions one class will produce it at a profit and another at a loss. If the cows are divided into four groups based on conformation, assigning the beefy cows to the first, those with less tendency to plumpness to the second, the spare cows lacking depth to the third, and the spare cows with deep bodies to the fourth, results follow which seem to be of vital importance to every dairyman.

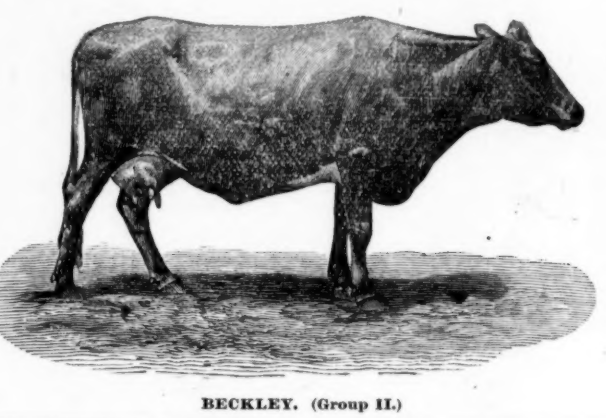
Group I—Beef Type, Blocky and Plump.
To illustrate the general conformation of the cows in this group a picture of the Shorthorn cow Dido is given. The engraving was made from a photograph taken before the experiment began, and is an excellent likeness of the cow. She is large and blocky in outline, being level from base of horns to setting on of tail, deep well rounded thigh coming well down to hock, brisket low and running well forward, neck short and heavy at the shoulders, broad across the shoulders,



DIDO, (Group I.)

Group I—Beef Type, Blocky and Plump.

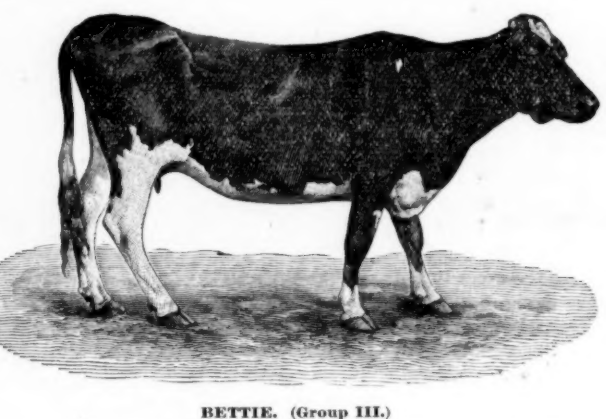
Cow.	Breed.	Weight.	Lbs. dry matter per day per 1000 lbs. live weight.	Lbs. butter fat per 100 lbs. of dry matter.	Cost of 1 lb. of butter.
Fancy.....	1259	Polled Angus.....	15.41	32.36	3.08
Dido.....	1245	Shorthorn.....	14.61	32.36	3.09
Sully.....	1219	Shorthorn.....	15.96	28.94	3.45
Average.....	1240		16.00	31.25	3.20



BECKLEY, (Group II.)

Group II—Cows Having Less Tendency to Lay on Flesh.

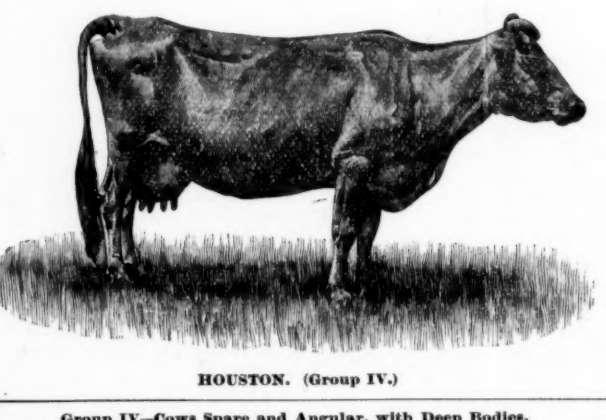
Cow.	Breed.	Weight.	Lbs. dry matter per day per 1000 lbs. live weight.	Lbs. butter fat per 100 lbs. of dry matter.	Cost of 1 lb. of butter.
Beckley.....	942	Grade Jersey.....	25.10	25.08	3.98
Clara.....	809	Grade Jersey.....	21.63	31.68	3.23
Rosie.....	1027	Grade Jersey.....	21.63	31.68	3.23
Average.....	945		22.78	29.15	3.48



BETTIE, (Group III.)

Group III—Cows Spare and Angular in Form, but Lacking Depth.

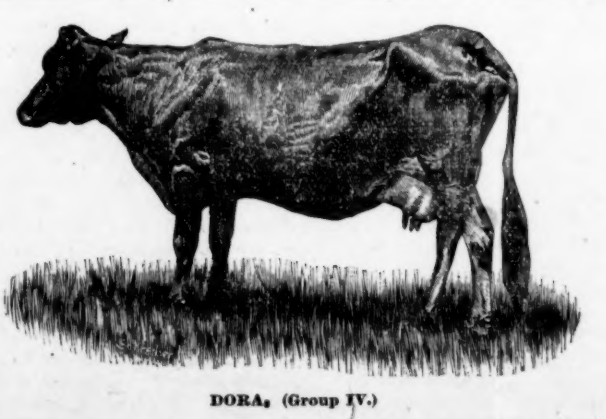
Cow.	Breed.	Weight.	Lbs. dry matter per day per 1000 lbs. live weight.	Lbs. butter fat per 100 lbs. of dry matter.	Cost of 1 lb. of butter.
Jennie.....	1020	Grade Holstein.....	23.29	28.58	3.49
Clara.....	809	Grade Jersey.....	21.63	31.68	3.23
Olivia.....	805	Grade Jersey.....	21.63	31.68	3.23
Average.....	875		23.00	25.54	3.94



HOUSTON, (Group IV.)

Group IV—Cows Spare and Angular, with Deep Bodies.

Name of Cows.	Breed.	Weight.	Lbs. dry matter per day per 1000 lbs. live weight.	Lbs. butter fat per 100 lbs. of dry matter.	Cost of 1 lb. of butter.
Annie.....	Jersey.....	25.80	21.36	4.81	1.23
Beckley.....	Holstein.....	25.80	21.36	4.81	1.23
Bess.....	Jersey.....	25.80	21.36	4.81	1.23
Bettie.....	Jersey.....	25.80	21.36	4.81	1.23
Clara.....	Jersey.....	25.80	21.36	4.81	1.23
Dora.....	Jersey.....	25.80	21.36	4.81	1.23
Fancy.....	Jersey.....	25.80	21.36	4.81	1.23
Gertie.....	Jersey.....	25.80	21.36	4.81	1.23
Houston.....	Jersey.....	25.80	21.36	4.81	1.23
Jennie.....	Jersey.....	25.80	21.36	4.81	1.23
Nora.....	Jersey.....	25.80	21.36	4.81	1.23
Olivia.....	Jersey.....	25.80	21.36	4.81	1.23
Patsy.....	Jersey.....	25.80	21.36	4.81	1.23
Rosie.....	Jersey.....	25.80	21.36	4.81	1.23
Sully.....	Jersey.....	25.80	21.36	4.81	1.23
Sweet Brier.....	Jersey.....	25.80	21.36	4.81	1.23
Topsy.....	Jersey.....	25.80	21.36	4.81	1.23
Tricksey.....	Jersey.....	25.80	21.36	4.81	1.23



DORA, (Group IV.)

the case with Jennie, that has a restless, roving disposition, always seeming to look for something better, while Olivia and Bettie are more contented. Bettie is a fair representative of the cows in Group III; they are not inferior dairy cows, their record for the year 1893 being 944 pounds of butter. They are the lightest feeders in the herd and require 25.54 pounds dry matter for a pound of fat, the butter fat costing 14.6 cents.

Group IV.
The cows in Group IV embrace all in the herd not in the preceding groups. To give a better idea of the conformation of the cows in these groups than can be done by words alone, the illustrations are given. Houston, a cross-bred

Jersey-Guernsey, consumed more feed per day and produced butter fat at less cost than any other cow in this trial. It is therefore proper that she should be selected as one of the representatives of the type of cow that gives best return for food consumed.

The illustration is from a photograph taken after the close of the experiment. She is, and has been, in good health all the time she has been in the herd. Her appetite is clearly shown by the fact that she ate 28.24 pounds of dry matter daily during the test, the standard being 24 pounds. That she made good use of it—possibly the best that could be—evident from the cost of butter fat, 10.8 cents per pound. Dora follows next in productive capacity, making a pound of butter fat for 11.1 cents, and returning a pound of fat for every 18.44 pounds of dry matter consumed.

The average number of pounds of dry matter eaten per day by the group is 23.58; average pounds of dry matter for a pound of fat, 21.15; cost of a pound of fat, 21.1 cents. The cows in Group IV, deviating the most from the type as represented by Houston and Dora, are Rose, Annie and Sweet Brier, deviation being in the order named. In examining the cost of butter fat in this group, it will be seen that Rose produces it for 12.9 cents, and Annie and Sweet Brier each for 12.8 cents per pound.

The cost of butter fat, as indicated in the last column, seems to depend more upon the type of cow than the breed, there being less variation in cost of production between cows of a certain type than between cows of the same breed. The cost of one hundred pounds of dry matter was 57 cents; estimating the price of a pound of butter fat at 25 cents, the cows in Group I returned a net profit of 23 cents for each hundred pounds of dry matter consumed; group II, 37 cents; group III, 41 cents; and group IV, 61 cents. Group I consumed on an average 20.81 pounds dry matter per day, returning 4.7 cents profit; the cows in Group II ate 20.37 pounds dry matter, and gave 7.5 cents profit; group III ate 19.05 pounds each, and returned 8.1 cents, while group IV ate 21.86 pounds each per day at a profit of 13.3 cents, or nearly three times as great a net profit as the blocky cows in group I.

Group.	Dry matter eaten per day.	Lbs. butter fat per 100 lbs. of dry matter.	Cost of 1 lb. of butter.
I.....	20.81	16.60	31.25
II.....	20.37	21.62	24.23
III.....	19.05	25.00	24.30
IV.....	21.86	23.58	15.42

Communications.

THE PROHIBITION PARCE IN MAINE.

BY REV. J. M. WYMAN,

Pastor of the Baptist Church, Augusta, Me.

This is the subject of a series of articles published by the *Boston Herald*. They are written up by a correspondent whose tastes and sympathies can be easily guessed. He captures his host of readers at the start, and will doubtless carry them with him to the end; for he writes in a racy, careless, spirited fashion, which takes with the crowd. He claims to have spent a month in his investigation, and if his stories are true he is fortunate to get back from our State where rum is said to rule, to his own favored State of *license* without delirium tremens. He has made a tour through the whole State, a delightful vacation trip, by the way, and proposes now to explain exactly how the liquor interests stand in our cities and larger towns.

Two or three facts at this point will heighten our interest in these articles, viz.:
1. The *Herald* has been engaged for some years in fighting against the principle of prohibition, and we admit it has been a trusty champion. It has the advantage of long experience. We remember well the fights of other days.
The *Herald* knows well what advertisement pay, and what kind of matter will bring the coppers.

2. It is significant that these articles should appear just at the opening of our State legislature, when a wealthy representative had published his intention to introduce a resolve, at his earliest opportunity, for the resubmission of the Prohibition Amendment to the people.
A word to the wise is sufficient. It is well for the friends of our time honored *Maine Law* to be opening their eyes. We may not have said all we ought to our representatives on this subject.

3. A third fact is the unblushing advocacy of high license by the saloon. The saloon claims that it is profitable to pay \$1000 for the privilege of selling liquor. We may be sure it would not favor such a measure unless there was profit in it. It is foreign from our purpose to go into an exhaustive argument on this subject, but we may rest assured that there are solid grounds upon which to rest the case. It is also noticeable how the liquor fraternity has massed its forces on one State after another when a contest of this kind was promised. They are evidently looking with eager eyes to the Pine Tree State. How glad they would be to see it, how glad they would be to see it, how glad they would be to see it.

I am reminded, however, of an experience told me in childhood. A foolish fellow was informed that a ferocious bull was coming. He forthwith drew his rusty jack-knife, and turning with a swagger, said: "I—I shall face him." We, too, may be called foolish, but we shall successfully face the panting hierarchy with horns and cloven feet. The thing we fail to understand is how a Boston paper can come down here and declare that we are selling more liquor without a license than they are with, and then turn its guns on our amendment and urge the adoption of license. Often in our haste we forget to be consistent.

We submit that it will not be inappropriate to consider the above facts in weighing the evidence which our friend volunteers (P) to give. But notice the nature of the evidence. At one city he

stops as long as a train stops, and then goes back to his editorial sanctum to give the facts. At another city, after thorough investigation, he is summoned before the courts to state facts and not one single fact of use as evidence could be stated. Our discoverer was obliged to say that his knowledge was based upon hearsay.

Now any one can guess that a man who has a red face or drives a fast horse drinks. But we submit that imagination or guess work does not form a sufficient basis for the glaring and misleading headlines which appear from day to day in the *Herald* on this subject.
The attempt is made at this opportune moment to disparage the *Prohibitory Law*; to work up sentiment against it, and if possible to overthrow it. Now, the evidence of old, substantial, reliable citizens may be worth as much in the case as the guesses of a prejudiced party, who desires to make out a case in his own interests.

We do not mean to deny that liquor is sold defiantly, transported illegally, and smuggled about in a variety of ways. Any sane man admits this. No temperance fanatic, so called, of the most pronounced type, has ever attempted to deny this.
As long as there are men and women of loose morals among us, who have an appetite for strong drink, and there is the possibility all about our borders of securing it, even the most stringent law will be unable to prevent absolutely its use.

No law against theft, or Sabbath-breaking, or manslaughter succeeds, or will ever succeed, in preventing crime. Shall we, therefore, license men to commit theft, or to kill, in order that the State may the more easily protect itself? It may be that the violations of our law are more numerous than we think. It may be that the *Herald's* guesses are not exaggerated. What then?

Because there are those in our midst who will secure their liquor, shall we pass a law to supply them, and thereby place before our boys a continual temptation? Shall we legalize a business which we know is evil, and only evil, just for the sake of the evil-minded?

The trouble is not with our law, but with its enforcement. Possibly the *Herald* has unwittingly rendered the temperance cause a lasting service. It has convinced many of the need of action. The great trouble in Maine is: The people thought, when they passed the Prohibitory Amendment, that the work was done forever. They somehow thought the law would enforce itself. No law will do this. The more temptations there are to evade the law, or to defy it, the more alert should we be to enforce it.

The *Herald's* exaggerated accounts of non-enforcement are aimed at the overthrow of our law. But if the statements were true, we, as a people should stoutly oppose any change from our present system.

The benefits of this law to our State have been simply incalculable. It has brought prosperity and thrift to hundreds of communities, and those localities where its enforcement has been disregarded look like the track of a cyclone. It is not difficult to find where the people are indifferent on this subject. The mean, ill-kept tenements tell the story. Yet these localities are not numerous. Large sections once cursed by rum have been transformed under our law into prosperous towns. Ask such towns if they would like to go back to the old conditions. They would sooner set fire to their own dwellings than have an appetite for drink cultivated in their children.

The sons and daughters of Maine everywhere speak with pride of the *Maine Law*. It is pointed out through the entire extent of our territory as a beacon light. It is held before the world as a worthy example. It has done more for the temperance cause directly and indirectly than any single factor which can be named. But at this very time there is a movement well under way and strongly endorsed by some for a change. You shake your head significantly. Let us not rest too easy. Our opponent is subtle and wily. We should not allow him to steal any marches on us. It is not enough to defeat such a movement. Defeat should be decisive. But a still more important matter is suggested by these articles. Whether they contain much truth or much fiction, our attention should be fastened on the subject of enforcement.

Are we not inexcusably dumb in regard to this matter? It is, of course, discouraging to have officials laugh at any suggestions for enforcement; to have the open and secret connivance with the law which we are all so familiar.

But we must remember that these same conditions exist to an equal degree under the *license system*. So long as men continue to be base and unprincipled, we may expect to meet these things. The human mind has always been exceedingly fertile in devising means for evading law. The liquor law is no exception to the general rule. We need to be on guard. Our duty was not finally performed when we stepped up to the polls and voted that we would not license the sale of liquor. We must still stand up and fight. We may pass laws to prevent setting houses on fire. But if they get on fire, we must see that the flames are extinguished. Our duty to act promptly is clear, whether there is a law or not.

It is even more important for us to act when the lives of men are in danger. It is appalling to think how drink destroys the happiness, usefulness and prosperity of the individual. What shipwreck for every earthly and heavenly interest there is here! There should be a

Second hand Sleigh, with two seats, upholster red, will be sold at a bargain. Apply at **MAINE FARMER OFFICE**.
Augusta, Nov. 15, '94. 21f

Maine Farmer.

ESTABLISHED IN 1833.

Published every Thursday,
Badger & Manley,
AUGUSTA, MAINE.

THURSDAY, JANUARY 3, 1895.

TERMS.
\$1.50 IN ADVANCE; OR \$2.00 IF NOT PAID
WITHIN ONE YEAR OF DATE OF
SUBSCRIPTION.TERMS OF ADVERTISING.
For one inch space, \$2.50 for three inser-
tions and seventy-two cents for each subse-
quent insertion.COLLECTORS' NOTICES.
Mr. C. S. AYER is now calling upon our sub-
scribers in West Kennebec county.
Mr. J. W. KELLOGG is now calling upon our
subscribers in Arrostook county.Our correspondent, G. A. Cochrane of
Boston, writes us that soon after the
holidays he is looking for a good market
across the water. In Boston there is a
good demand for Baldwins and Northern
Spies, to go West and South.The boys in the State Reform School
have presented Hon. Fred Atwood a
handsome coat and hat rack, of their
own make, in acknowledgement of the
deep interest Mr. Atwood has taken in
the boys during his term of office as
Executive Commissioner.The number of persons going into in-
solventcy in Arrostook county is looked
upon as alarming. There have been
over seventy-five debtors who have gone
into insolventcy in that county the past
year. The astonishing large number of
twenty-six is recorded for the month of
November in the Insolventcy Court.The chairman of the Maine Floral Em-
blem Society has received so many let-
ters the past week, urging that the bal-
lot be kept open longer, that it seems
advisable to let the voting continue un-
til the 12th of January, in order to give
every one, who wants to exercise the
right of suffrage, a fair chance.John McGillicuddy, H. E. Feltier, Na-
poléon Bolduc, H. A. Vachon were con-
victed at the municipal court in Lewiston
of selling bogus butter. The case
goes to the Supreme Judicial Court, and
the respondents recognized in two hun-
dred dollar bonds. This suit was
brought by Secretary McKenney, of the
Board of Agriculture, who intends to
push his investigations.Owing to statements made during the
diphtheria scare about the water used at
the Normal School building in Farmington,
Prof. G. C. Purinton, principal of the
school, sent samples of the water to
Prof. Robinson of Bowdoin College, to
analyze. The samples were taken from
the tank in the building, from the faucet
where it enters, and from the wells on
the hill. Prof. Robinson writes that it
is water of extraordinary purity and ab-
solutely safe to drink.Some one hundred of the most emi-
nent men of the grand old Common-
wealth of Massachusetts met at the
Parker House, Boston, Saturday, to do
honor to the memory of Charles Sumner,
and to offer their congratulations to his
biographer, Hon. Edward L. Pierce, upon
the completion of the memoirs of the
great anti-slavery leader of the State.
Senator George F. Hoar presided at the
banquet, and speeches were made by
eminent gentlemen."One by one the roses fall." Another
"investment" company has gone the way
of all the earth. This time it is the
Debutante Investment Company, a west-
ern company that had its eastern head-
quarters in the Equitable building, Bos-
ton. It has been since 1892, and
since that time has managed to fleece
from the people of New England the sum
of \$70,000, in exchange for which it had
given them gold bonds which are to-day
worth somewhere in the neighborhood
of 20 cents on the dollar. It furnishes
one more instance, if another is needed,
to show how a few smart western adven-
turers, whose capital is principally nerve,
can walk into the conservative old com-
monwealth, dive deep into the pockets
of its citizens, and then walk out again
before these citizens are awake to the
fact that they have been robbed.Henry Clews & Co., the able bankers,
in their circular issued at the close
of the year, say: "The setting of 1894,
however, throws out some rays of hope
for 1895. Among the various trades
there are indications of a more hopeful
feeling for the spring business. The
fact of a comparative lightness of fail-
ures at the close of the year is construed
as indicating a sounder condition of
business than had been supposed to ex-
ist. The earnings of the railroads show
a tendency towards improvement; and
the progress towards settlement of the
affairs of roads in the hands of receivers
is suggestive of an early removal of that
source of depression from the investment
market. The feeling is thus steadily
gaining ground that Wall street has
passed its lowest stage of prostration
and that the new year will introduce a
tendency towards steady recovery."Recently the Assistant Treasurer of
the United States at New York city, has
turned into the Post Office Department
fund the sum of \$1,300,000, which has
been accumulating in the Sub-Treasury
during the last thirty years, from the
funds paid to the money order post
offices for remittances, which have never
been claimed. Old money orders are
presented at the Post Office Department
almost every day, but the amount of the
unpaid money order fund increases con-
stantly, and there is no likelihood that
any part of the \$1,300,000 will be claimed
by its owners. In fact, every year from
\$50,000 to \$100,000 is added to the fund,
which represents carelessness or neglect.
The Treasury Department has a large
source of income in the issue of bonds
and bank notes. There is no doubt that
of the \$50,000,000 worth of bonds just
issued some proportion will never be pre-
sented. There is more than a million
dollars in the Treasury to-day, due to
holders of United States notes marked
on the Treasury books as not redeemed,
which will never be presented. Most of
this money has been destroyed.

LOOKING FORWARD.

The year 1894, with its hours of pleasure and those of sad and bitter experience, has gone into the past, never to be recalled. Reflections of somewhat of a searching character come to one at such a time. The nineteenth Psalm, which is the only one of the series attributed to Moses, and which signalized the emergence of the children of Israel from their wilderness life, may well be the utterance of many hearts as we stand upon the threshold of a new year, about to launch our frail barques upon its untrodden realities. The Lord, who "has been our dwelling place in all generations," who has followed the fathers with his countless blessings, is still our stay and support. He is the refuge to which we may come as to a home, as to a dwelling place, as a tired wanderer after a long and toilsome journey. One generation after another has found him to be the same unchangeable God. He meets the wants of childhood with his hopes and glad anticipations, and soothes with his comforting assurances the pathway of old age as it descends into the valley. He is alike the cheer and inspiration of manhood. Before the mountains appeared—the first features of the natural landscape—from duration stretching backward without limit to duration stretching forward without limit, there existed God, the Creator, the intelligence that created and that continues to uphold and preserve. Amid the changes of life and the vacillations of weak humanity, it is impossible for the mind to grasp a grander thought than that there is one Unchangeable Being.

Reading along further in this Psalm, we are reminded of the transitoriness of human life. "Thou carriest them away as with a flood; they are as a sleep; in the morning they are like grass, which is cut down, and withereth. The days of our years are threescore years and ten; and if by reason of strength they be fourscore years, yet is their strength labor and sorrow; for it is soon cut off, and we fly away." The prince and potentate must one day mingle in common dust. It is the fate of all. Whatever your rank or station, however lofty the ambitions of life, you must go back to the original elements of creation. Human life, at the longest, is narrowed down to a brief space. So it is with animal life. The horse, the mule, the elephant, the eagle, the raven, the bee, the butterfly, have each a fixed limit of life to accomplish the design for which they were made. So it is with man. The boundary line of this life is almost inexorably fixed. And how we should strive to improve every hour of our pilgrimage. "So teach us to number our days that we may apply our hearts unto wisdom." All we should be the honest, earnest prayer of all as we start out upon the hours of 1895. A long life like that which came to the ancients may not always be desirable, and is not always attained, but the main thing, after all, is to estimate our days aright, so that we may be the most useful and helpful in this short life, looking to the great eternity beyond, from whence we receive our inspiration. This is the very highest philosophy, while it is the most practical common sense.

FOR THE COMMON SCHOOLS.

The common schools of the country form the bulwark of our American institutions. That fact cannot be denied by any intelligent fair-minded man. The American League for the protection of American institutions, assisted by a large number of influential gentlemen all over the State, will ask of the present legislature the passage of a constitutional amendment denying to all religious sects any pecuniary assistance whatsoever from the State. An amendment of this kind passed the last House by the extraordinary vote of 92 to 12. It failed to pass the Senate. The House insisted on its action and asked for a committee of conference. The Senate accepted the measure to the next legislature (1895). This action leaves the resolution pending with a favorable report of the Judiciary Committee, and all the petitions and memorials on file for the consideration of the present legislature.

The evil of appropriating money by the State to denominational educational institutions has long been recognized by sagacious statesmen, and believed by some to be contrary to the spirit of our constitution, but not directly prohibited. It has grown by indulgence, until now its magnitude is beginning to be alarming. If denominational institutions are to be made the wards of the State, it will become the duty of the guardian to foster and protect the feeble equally with the more prosperous and numerically larger sects, thus perpetually multiplying the number of the beneficiaries of the State, and eventually entailing upon the public treasury burdens too grievous to be borne, to say nothing of the perplexity which must arise in the division of the money among so many denominations of Christians, claiming at once to be the most worthy and the most needy. The only practicable solution of this disturbing and perplexing problem seems to be to deny to all religious sects any pecuniary assistance from the State. The functions of the State and of the church are so different that their entire separation is indispensable alike to civil and religious liberty.

No longer ago than 1891 the legislature of this State donated to various private schools almost one hundred thousand dollars, the payments to be distributed over a term of ten years. If a legislature can donate an hundred thousand dollars, it may a million dollars. The legislature of 1891 was not content to make donations for two years only, and leave it to the next legislature to continue the donations if it seemed wise, but practically precluded for ten years any future legislature from all action in the premises, no matter in what condition our State finances might be. Such dangerous legislating, we believe, should be prohibited by our constitution.

Meeting of the Trustees of the State Agricultural Society at Lewiston to-day.

MAKE-UP OF THE LEGISLATURE.

The legislature of Maine assembled at the State House, in this city, yesterday forenoon. The proceedings of the session, which was little more than an organization of the two branches, will be found elsewhere. To-day, in convention of both branches, Governor Cleaves delivers his message. From an advance copy we are able to lay this important State document before our readers. It will be found in full on the fifth page. We shall each week give our readers an epitome of the legislative proceedings, giving all of importance, and omitting the unimportant.

Perhaps our readers would like to look at the make-up of the present legislature; and to do this we turn to an advance copy of Howard Owen's Biographical Sketches. In the Senate he has complete returns from every member but one. In politics this body is solidly republican. The oldest member at the board is Hon. Wm. M. Cook of Cumberland, who is 99 years of age. The two youngest members are Hon. Elmer P. Spofford of Hancock county, and Hon. Frank W. Hovey of Somerset county, who are each 31 years old. Nine of the senators are between 30 and 40, nine between 40 and 50, eleven between 50 and 60, and two between 60 and 70. Eleven were born in the towns where they now reside; two were born out of the country; seven received a collegiate and eleven an academical education; twenty-five are married; twenty-six of the members have had legislative experience. Twenty-one have always been republicans. Other facts are compiled as follows:

Profession or Occupation.
Farmers..... 36
Lawyers..... 14
Merchants..... 14
Physicians..... 14
Manufacturers..... 14
Superintendents..... 14
Journalists, publishers, physicians, lumbermen, surveyors and engineers, farmers and surveyors, farmers and merchants, hotel keepers..... 1 each

Religion.
Free Baptist..... 4
Universalist..... 4
Liberal..... 4
Congregationalist..... 4
Unitarian..... 4
Baptist..... 4
Methodist..... 4
Spiritualist..... 4
No religious preference..... 10

The House of Representatives is composed of 151 members. Of these there are 146 republicans and 5 democrats. Fourteen members failed to respond to the circular of the compiler. The oldest member, "the father of the House," and the one having the longest legislative experience, is Maj. William Dickey of Fort Kent, who is 84 years of age. The youngest member is Hanson T. Crockett, Esq., of North Haven, who is 27 years of age. Four of the members are between 20 and 30 years of age, twenty between 30 and 40, forty-six between 40 and 50, forty-three between 50 and 60, thirteen between 60 and 70, six between 70 and 80, and one between 80 and 90. Fifty-four were born in the towns they now represent; only two members were born out of the country; fifteen received a collegiate education; thirty-nine received an academical education. The remainder had only the privileges of the common school. Twenty-eight have had legislative experience; 119 are married; seventy-two have always been republicans, and one has always been a democrat. Most of the occupations are represented, the farmers leading, as usual. While 36 of the members devote their entire time to farming, ten others follow that along with other branches of business. So, joined with the farmers of the Senate, the agricultural force may be a powerful factor in the legislation of the winter.

We present statistics as follows:

Profession or Occupation.
Farmers..... 36
Merchants..... 14
Lawyers..... 14
Physicians..... 14
Manufacturers..... 14
Superintendents..... 14
Journalists, publishers, physicians, lumbermen, surveyors and engineers, farmers and surveyors, farmers and merchants, hotel proprietors..... 1 each

Religion.
Methodist..... 23
Universalist..... 22
Baptist..... 21
Free Baptist..... 21
Unitarian..... 21
Episcopal..... 21
Roman Catholic..... 21
Liberal..... 21
Friend, Christian, Independent..... 1 each

The Maine Pedagogues, at Auburn, last week, had one of their most successful conventions. Resolutions were adopted favoring a State Board of Education; endorsing the prospective legislation for the State cessation of teachers; recommending legislation toward county or district supervision; asking an appropriation of \$100,000 for the maintenance of summer schools of methods for teachers; also for money to pay for the printing of reports of the society's conventions.

Every reader of the Farmer will want to preserve this issue for the valuable tables and object lessons on the second page. They are well worth many times the price of a year's subscription to any man interested in dairying, or milk production.

Prof. V. M. Whitman, principal of the Calais high school, while skating on the ice at his home, on Friday, went into an open place near Capt. Ames' steamer. He went down over his head in the water, but caught hold of the rudder and swung himself out.

A vigorous and able communication on the prohibitory liquor law, from the ready pen of Rev. Mr. Wyman of this city, will be found on the second page. It is well worth reading.

The Governor and Council commuted, on Monday, the sentence of Clarence Whitney from 10 to 8 years. Whitney was the principal in the robbery of Peter Bennett at Newport.

The new 4 per cent. bridge bonds issued by the city of Calais have not had to go out of town to find a market, the Calais Savings Bank having taken the lot at a premium.

BOSTON LIVE STOCK MARKET REPORT.

Statistics of the Boston Live Stock Market for the Year 1894.

We present herewith our annual statement of the amount of live stock at the Waterfront and Brighton stock yards, showing the increase or decrease, as compared with the ten preceding years:

	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894
Hogs	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010
Cattle	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010
Sheep	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010
Pigs	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010	10,010

WHERE THE STOCK IS FROM.

We give for reference the following table, showing the number of cattle and sheep from each of the New England States, northern New York, Canada and the West for each quarter, with the total receipts for 1894, and each of the six preceding years:

	1889	1890	1891	1892	1893	1894
Canada	37,246	37,246	37,246	37,246	37,246	37,246
N. Y.	37,246	37,246	37,246	37,246	37,246	37,246
Mass.	37,246	37,246	37,246	37,246	37,246	37,246
Vt.	37,246	37,246	37,246	37,246	37,246	37,246
N. H.	37,246	37,246	37,246	37,246	37,246	37,246
Maine	37,246	37,246	37,246	37,246	37,246	37,246
Quarter ending	37,246	37,246	37,246	37,246	37,246	37,246
March 27	37,246	37,246	37,246	37,246	37,246	37,246
June 27	37,246	37,246	37,246	37,246	37,246	37,246
Sept. 27	37,246	37,246	37,246	37,246	37,246	37,246
Dec. 27	37,246	37,246	37,246	37,246	37,246	37,246
Total	37,246	37,246	37,246	37,246	37,246	37,246

THE FOLLOWING IS A CAREFULLY PREPARED

detail of the ways of transportation, whereby cattle and sheep reach Waterfront and Brighton stock yards, as taken from our weekly stock market reports:

	1889	1890	1891	1892	1893	1894
Canada	37,246	37,246	37,246	37,246	37,246	37,246
N. Y.	37,246	37,246	37,246	37,246	37,246	37,246
Mass.	37,246	37,246	37,246	37,246	37,246	37,246
Vt.	37,246	37,246	37,246	37,246	37,246	37,246
N. H.	37,246	37,246	37,246	37,246	37,246	37,246
Maine	37,246	37,246	37,246	37,246	37,246	37,246
Quarter ending	37,246	37,246	37,246	37,246	37,246	37,246
March 27	37,246	37,246	37,246	37,246	37,246	37,246
June 27	37,246	37,246	37,246	37,246	37,246	37,246
Sept. 27	37,246	37,246	37,246	37,246	37,246	37,246
Dec. 27	37,246	37,246	37,246	37,246	37,246	37,246
Total	37,246	37,246	37,246	37,246	37,246	37,246

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Quarter ending	37,246	37,246	37,246	37,246	37,246	37,246
March 27	37,246	37,246	37,246	37,246	37,246	37,246
June 27	37,246	37,246	37,246	37,246	37,246	37,246
Sept. 27	37,246	37,246	37,246	37,246	37,246	37,246
Dec. 27	37,246	37,246	37,246	37,246	37,246	37,246
Total	37,246	37,246	37,246	37,246	37,246	37,246

THE FOLLOWING IS A CAREFULLY PREPARED

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	1889	1890	1891	1892	1893	1894
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Mass.	37,246	37,246	37,246	37,246	37,246	37,246
Vt.	37,246	37,246	37,246	37,246	37,246	37,246
N. H.	37,246	37,246	37,246	37,246	37,246	37,246
Maine	37,246	37,246	37,246	37,246	37,246	37,246
Quarter ending	37,246	37,246	37,246	37,246	37,246	37,246
March 27	37,246	37,246	37,246	37,246	37,246	37,246
June 27	37,246	37,246	37,246	37,246	37,246	37,246
Sept. 27	37,246	37,246	37,246	37,246	37,246	37,246
Dec. 27	37,246	37,246	37,246	37,246	37,246	37,246
Total	37,246	37,246	37,246	37,246	37,246	37,246

and as a result, prices on cattle are getting into a more profitable channel; in one week of late nearly 10,000 sheep were sailing over the Atlantic from Boston.

The increase in hogs for Boston market, over last year, 390,403; in pigs an increase of 3,308, and in horses an increase of 11,755, with a total of 32,948 head. These figures in horses include only such as come by railroads and Eastern steamers. In 1893, arrivals of 21,103 against 33,138 in 1892 and 36,062 in 1891. Only in calves has the supply fallen off. In 1894 the number was 73,098, against 80,315, but only a difference of 6,319, or an average of 121 head less per week.

We consider the above a very good showing for the year. Hog receipts more than any time for at least ten years. In cattle a similar result, with the exception of last year. Prices on horses we can say are fully as satisfactory as last year for desirable qualities. Store pigs steady in price, and on cattle and sheep prices much the same as last January. We find, however, that hogs were quoted last week at 6 1/2 c. for Northern dressed, and 5 1/2 c. for Western ones.

KENNEBEC COUNTY NEWS.

—Mrs. William J. Reed of Wayne fell, recently, breaking one bone of her fore arm.

—Miss Phoebe Pettigill of Wayne, who fell and broke her hip last summer, has recovered so as to sit up and do light work. She is 93 years old.

—The Gardiner and Richmond Mutual Fire Insurance Association, which was organized in Gardiner in October, has written over \$40,000 worth of business.

—In the case of an appeal from the allowance of the will of the late William Winter of Hallowell, the Supreme Judicial Court has dismissed the appeal, and affirmed the decree of the Judge of Probate, allowing the will.

—Yesterday his associates in the county officers presented to the retiring county Commissioner, Hon. Charles Westworth of Clinton, an elegant gold watch and chain, as a slight testimonial of the esteem in which he is held by them.

—A horse belonging to Wm. Wingate of Gardiner having died, an investigation was made, and a large spoonful of Paris green was found in the feeding box. Large quantities of the poison were also found in the hay. It is thought that this was put in after it got into Wingate's barn.

—Miss Emeline Faught of Riverside, better known as Aunt Millie Faught, died yesterday, at the great age of 98 years. She was the oldest person in town, and belonged to a long lived family. She was recovering from pneumonia, and received a stroke of paralysis, from which she died. Her intellect was clear and unclouded.

—Edward Harvey, formerly of Waterville and a Fairfield young man, met with a serious accident while skating on the river above the dam at Fairfield, recently. They were engaged in the game of ice polo with a number of other boys, when they came forcibly together, and both being violently thrown upon the ice. Young Harvey's leg was broken in two places, and the boy's head badly cut, necessitating a dozen or more stitches.

—The vital statistics of Waterville for the year 1894, show that the total number of deaths reported is 151. August was the month of the greatest mortality with a list of 25 deaths. The next highest month was November, when there were 22 deaths. In the list 19 people were more than 70, over 80, and one man was 94 years old. The number of births for the year was 129, and all not yet reported, while the number of marriages was 87.

BRING

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BRIDGING THE ENERGY

brought on by waning strength and wasting tissue, needs reconstructing food that will repair and build up the weak places; such is found in

Angier's Petroleum Emulsion

It contains nerve food, tissue food and the necessary energy for body building and energy renewing.

50c. and \$1.

ANGIER CHEMICAL CO., Boston, Mass.

Read the article on Petroleum at the left

ON SALE!

Draft Horses

Don't miss this sale, as the best horses will be absolutely sold to the highest bidder, regardless of cost or value.

PUBLIC AUCTION at
12 B. Market Square.
Wednesday, Jan. 15, 1894

and to Augusta special for this season in Indiana, and are all young horses to be raised.

and 48 hours' trial, and if they are not satisfactory, these horses are suitable for farm use. They can be made in good notes or cash. Remember size and weight from 1500 to 1700 pounds high. NOTE—This is a grand opportunity for

ES AT 10 A. M. SHARP.
CARROLL & CONNELLY, Proprietors.

THE most successful farmers and gardeners buy their seed directly from the growers. This season we raise largely the most popular, especially Cabbage and Onion Seed. It is extra fine this season. No catalogue. We have more varieties of vegetable seed, and none so good as these are really good—see outside for an illustrated selection from our new crop, which we will sell at half rates. Catalogue

J. J. B. GREGORY & SON, Seed Growers, HARBURD ROAD, MASS.

MINARD'S
King of Pain.
LINIMENT

RELIEVES
Sore Feet,
Stiff Joints,
AND PAINS IN
Back, Chest, and Sides.

HEALS
Burns, Scalds,
Insect Bites, etc.

CURES
Rheumatism,
Neuralgia,
Headache, Toothache.

MINARD'S LINIMENT

THE GREAT
INTERNAL
REMEDY
"MAN-BEAST"

ALL SOLD BY
ALL DRUGGISTS, IN LARGE BOTTLES
AT THE POPULAR PRICE OF 25 CENTS
"SAMPLES FREE OF CHARGE"
TRY IT AND YOU
WILL BE CONVINCED

It is the KING OF
MINARD'S LINIMENT MFG CO.
BOSTON, MASS.

Sarsaparilla

is only a pleasant sounding name for a disease fighter. The ingredients mentioned accomplish all the good effects. Hence we stick to the old

L. F. Atwood's Medicine for blood purifier and it does the good just the same. "The proof of the pudding is in the eating."

35 cents a bottle everywhere.

SLOW BUT SURE.

In these days of rapid transit, 2 1/2 mile an hour would be called slow, but if the train was making as he went along, the most perfect, complete, self-regulating wire fence heard of, it would alter the case. Our fence with its increased capacity, will turn 5000 sheep an hour, and as we run 5000 per day in the spring, 64 miles will be daily produced for the demand always up with the supply.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

Winter Days and Nights

LUNG PROTECTOR
BEST HOT WATER BAGS OF RUBBER
PARTRIDGE

Old Reliable Drug Store
P. O. Keep your lungs protected by day and night, in warm nights, and in grippe, colds, etc., this will

"Better Than Ever Before"

GORHAM NORMAL SCHOOL

The next Term will begin Jan. 30, Tuition and text books free. Good board reasonable. Unsurpassed chance for a professional education. For catalogue address **W. J. CORTHELL, Gorham, Me.**

FOR SALE.

A square piano in good condition. Will sell at a bargain. Apply at **MADE FARMER OFFICE**, Augusta, Nov. 19, 1894.

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